

MEMORANDUM

TO: Air Quality Board

THROUGH: Bryce C. Bird, Executive Secretary

FROM: Alan Humpherys, Minor New Source Review Section Manager

DATE: November 20, 2019

SUBJECT: PROPOSE FOR PUBLIC COMMENT: Amend R307-401. Permit: New and Modified Sources.

On August 7, 2019, the Air Quality Board (Board) proposed for public comment amendments to Utah Administrative Code R307-401 related to soil vapor extraction (SVE), air stripper systems, and sub-slab vapor mitigation systems (VMS). The public comment period was held from September 1 – 31, 2019, and staff received three comments regarding definitions and organization of the rule. The comments can be found as an attachment to this memo. Staff generally agreed with the comments related to definitions and revised the rule accordingly. Staff also made changes in response to comments received from the Board on August 7, 2019.

However, due to the Office of Administrative Rules moving to a new system for online filings, staff is unable to submit a Change in Proposed Rule (CPR). For that reason, staff has decided to allow the original filing to lapse and create a new filing which incorporates the changes from the first filing along with the changes mentioned below. The proposed changes to Utah Administrative Code R307-401 will require another public comment period. The public comment period will run from December 15 to January 14.

The original public comment period was held from September 1 – 31, 2019. **Background and Summary of Changes**

Utah Administrative Codes R307-401-15 and -16 apply to SVE or air stripper systems and soil aeration projects. These rules exempt an owner or operator of a soil or groundwater remediation site from the new source review (NSR) permitting process as long as volatile organic compound (VOC) emissions are under five tons per year and hazardous air pollutants are less than their threshold values in R307-410-5(1)(c)(i)(c). The rules require the owner or operator to test to demonstrate compliance with the exemption levels.

R307-401 was proposed for amendments to include new and updated definitions and updated testing requirements. In addition, staff added an exemption for sub-slab VMS, which are systems designed to mitigate vapor intrusion into an occupied or occupiable structure. These systems are not designed to

remediate contaminated soil or groundwater. The amended rule exempts these systems from the NSR permitting process and from the requirements of R307-401-15. This exemption is included in R307-401-10(7).

Additional Information

In addition to the public comments received, staff has also prepared responses to questions posed by the Board on August 7, 2019, when this rule was proposed for public comment. Specifically, the Board requested additional information on the testing requirements and on the impact of SVE and air stripper systems in the Wasatch Front Ozone Nonattainment Area.

Testing Requirements

The rule was updated to allow sources to discontinue testing after three years of operation if testing demonstrates the emissions have remained below exemption levels. The option to discontinue testing is included in R307-401-15(3)(e).

The basis for this change is that the majority of contamination is removed during the few months of operation of SVE and air stripper systems and mass removal rates typically decline over time. The intent of this update is to give owners/operators the option to discontinue sampling if the owner/operator can demonstrate that emissions from these systems have remained below the exemption levels since the beginning of the project.

The Board asked if there is a threshold for determining when sampling can be discontinued. DAQ believes that the exemption levels in R307-401-15(1)(a) and (b) should be the threshold when making this determination. However, DAQ also recognizes that there are several other factors that could affect the emissions from these systems, such as contaminant concentrations, plume migration, soil properties, system design, etc. Because of these potential uncertainties, DAQ proposed to do a case-by-case evaluation to determine if sampling can be discontinued. The case-by-case evaluation will include coordination with other regulatory agencies involved in the remediation project, such as Division of Environmental Response and Remediation or Division of Waste Management and Radiation Control. DAQ will seek input from these agencies on factors that could affect emissions prior to approving a request to discontinue sampling.

Impact to Airshed

The Board asked staff about the impact of SVE and air stripper systems on the airshed, specifically in the Wasatch Front Ozone Nonattainment Area.

In response to this comment, staff assessed the SVE and air stripper systems in the Wasatch Front Ozone Nonattainment area. There are currently eight active remediation projects in Salt Lake County and eight active remediation projects in Davis County. If each project has the potential to emit 5 tons per year of VOCs, the total potential contribution to the Wasatch Front Ozone Nonattainment Area could be up to 80 tons per year. This potential contribution accounts for approximately 2.5% of the total VOC emissions from point sources in Salt Lake and Davis counties, based on the 2017 emission inventory. It should be noted that this is a conservative estimate. Actual VOC emissions reported from these projects range from <0.1 tons/yr to 1.1 tons/year, significantly lower than the 5 tons/year threshold in this rule. Therefore, staff does not anticipate that these systems will be a significant source of VOC emissions in the Wasatch Front Ozone Nonattainment Area.

Recommendation: Staff recommends that the Board propose the amended R307-401 for public comment.